REMARKS

Present Status of the Application

Claims 1, 4-6, 8-10, 12 and 35-37 were rejected under 35 U.S.C. 102(e) as being anticipated by Haspeslagh (US 6,580,120) and claim 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Haspeslagh in view of Schwabe (US 4,257,832).

In response thereto, Applicants have further amended independent claims 1 and 35 and submitted the following remarks, wherein the amendment can be supported by, for example, FIG. 4 and related paragraphs in the specification. Reconsideration of claims 1, 4-6, 8-12 and 35-37 is respectfully requested.

Interview Summary

The undersigned would like to thank Examiner Warren for granting a telephonic interview on April 11, 2008, during which a proposed amendment to claim 1 was discussed. More particularly, the undersigned and the examiner discussed the rejections and the teachings of the Haspeslagh reference in view of the proposed amendments. After discussing this matter, the examiner acknowledges that Haspeslagh fails to disclose at least two neighboring conductive pieces (of the split gate) being a part of one word line. Moreover, there is double coding region for each conductive piece in the prior art.

Discussion of Rejections under 35 U.S.C. 102(e)

Claims 1, 4-6, 8-10, 12 and 35-37 were rejected as being anticipated by Haspeslagh. Please note that independent claims 1 and 35 have been amended.

The features of amended claim 1/35 include that the split gate *including the **at least two** neighboring conductive pieces shorted with each other* is a part of ***one*** word line of a non-volatile memory array including the non-volatile memory cell, and that ***only one*** coding region is defined in the memory cell by the ***at least two*** conductive pieces.

Haspeslagh fails to disclose the above features. As shown in Fig. 5 and described in related paragraphs, ***one*** word line includes ***only one*** "conductive piece" 7/11, and the leftmost ***three*** "conductive pieces" 7/11 shorted with each other belong to ***three*** word lines W_1-W_3, rather then ***one*** word line. Moreover, as shown in Fig.3, each memory cell in Haspeslagh apparently has ***two*** coding regions defined by the ***only one*** conductive piece of the memory cell.

Another feature of method claim 35 is that in the programming operation of the memory cell, ***0V*** is applied to the substrate and the ***source/drain*** while a first negative voltage is applied to the split gate, wherein the first negative voltage is sufficiently high for injecting electrons into the coding region.

Haspeslagh also fails to disclose the above feature of claim 35. In the program operation of a memory cell in Haspeslagh, the ***source*** and the ***drain*** of the memory cell must be applied with ***different voltages*** to have two coding regions in one cell (Fig. 3).

Furthermore, the memory cell structure of amended claim 1 is provided for the sake (lower operating voltage) of the operating method of claim 35, while the operating method of claim 35 is particularly suitable for the memory cell structure of amended claim 1. Since the memory cell structure and the operating method of Haspeslagh both

are quite different from those of the claimed invention, Haspeslagh also cannot suggest or imply the claimed invention, and thus the claimed invention is non-obvious to one of ordinary skill in the art in view of Haspeslagh.

For at least the above reasons, Applicants respectfully submit that amended claims 1 & 35 and claims 4-6, 8-10, 12 & 36-37 dependent therefrom all patently define over the prior art.

Discussion of Rejections under 35 U.S.C. 103(a)

Claim 11 were rejected over Haspeslagh in view of Schwabe. Haspeslagh fails to disclose or suggest the above features of amended claim 1, as mentioned above. It is also noted that Schwabe also fails to disclose or suggest the same features.

For at least the above reasons, Applicants respectfully submit that claim 11 dependent from claim 1 also patently define over the prior art.

CONCLUSION

For at least the foregoing reasons, it is believed that the pending claims 1, 4-6, 8-12 and 35-37 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,

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